

What is claimed is:

- 1. A wall repair compound including a dust reducing additive.**
- 5 2. A wall repair compound as defined in claim 1, wherein said dust reducing additive comprises less than about 20% of the wall repair compound total wet weight.**
- 10 3. A wall repair compound as defined in claim 2, wherein said dust reducing additive comprises from about 0.1% to about 10% of the wall repair compound total wet weight.**
- 15 4. A wall repair compound as defined in claim 3, wherein said dust reducing additive comprises from about 1.5% to about 6.0% of the wall repair compound total wet weight.**
- 20 5. A wall repair compound as defined in claim 1, wherein said dust reducing additive comprises at least one of a wax, an oil, a surfactant, a solvent, and mixtures thereof.**
- 25 6. A wall repair compound as defined in claim 5, wherein said dust reducing additive is a mixture of a mineral oil, an unsaturated oil, and a surfactant.**
- 7. A wall repair compound as defined in claim 6, wherein said wall repair compound includes a filler material and a binder material.**
- 30 8. A wall repair compound as defined in claim 7, wherein said filler material comprises from about 25% to about 95% of said wall repair compound total wet weight, and the binder material comprises from about 1% to about 45 % of said wall repair compound total wet weight.**

9. A wall repair compound as defined in claim 8, wherein said filler material includes a material selected from the group consisting of calcium carbonate, calcium sulfate dihydrate, and calcium sulfate hemihydrate.
- 5 10. A wall repair compound as defined in claim 9, wherein said binder material is selected from the group consisting of acrylic resins and vinyl acetate copolymers.
11. A mixture as defined in claim 10, wherein said dust reducing additive is mixed uniformly throughout said wall repair compound.
- 10 12. An initially paste-like mixture for filling joints between adjacent wallboard panels, and repairing cracks, holes, or other imperfections in a wall surface, said mixture including a sufficient amount of a dust reducing additive so that the mixture, when allowed to harden and sanded, generates a quantity of airborne particles having a size of less than 10 microns when tested as described in this specification which is 50% less than the quantity of airborne particles that would be generated by said mixture without said dust reducing additive.
- 15 13. A mixture as defined in claim 12 which when tested as described in this specification generates a quantity of airborne particles 75% less than the amount that would be generated if said mixture contained no dust reducing additive.
- 20 14. A mixture as defined in claim 13 which when tested as described in this specification generates a quantity of airborne particles 90% less than the amount that would be generated if said mixture contained no dust reducing additive.
- 25 15. An initially paste-like mixture for filling joints between adjacent wallboard panels, and repairing cracks, holes, or other imperfections in a wall surface, said mixture including a sufficient amount of a dust reducing additive so that the mixture, when allowed to harden and sanded, generates a quantity of airborne

particles having a size of less than 10 microns when tested as described in this specification which is less than 50 mg/m³.

16. A mixture as defined in claim 15 which when tested as described in this
5 specification generates less than 15 mg/m³ of airborne particles.

17. A mixture as defined in claim 16 which when tested as described in this specification generates less than 5 mg/m³ of airborne particles.

10 18. A mixture as defined in claim 12, wherein said mixture is a drywall joint compound comprising a filler material, a binder material, and sufficient water to adjust the viscosity of said joint compound to render said joint compound suitable for use.

15 19. A hardenable mixture having an initially paste-like consistency for filling and repairing cracks, holes, or other imperfections in a surface, said mixture including a sufficient amount of a dust reducing additive so that when the hardened mixture is tested as described in this specification, the quantity of airborne particles having a size of no greater than 10 microns is at least 50 percent lower than the quantity of
20 airborne particles that would be generated if the mixture contained no dust reducing additive.

20. A dust reducing additive composition for admixing with a drywall joint compound, said drywall joint compound comprising a filler and a binder, said
25 additive comprising at least one of a wax, oil, surfactant, solvent, and mixtures thereof.

21. A method of reducing the quantity of dust generated while sanding or otherwise finishing a hardened conventional drywall joint compound comprising the
30 step of mixing a predetermined quantity of a dust reducing additive with the joint compound prior to applying the joint compound to a wall surface.

22. A drywall joint compound comprising:

- (a) a filler selected from the group consisting of calcium carbonate, calcium sulfate dihydrate, and calcium sulfate hemihydrate;
- 5 (b) a binder;
- (c) a dust reducing agent present in an amount from about 0.1 to about 10 20 percent based on the wet weight of the joint compound; and
- (d) sufficient water to adjust the viscosity of said joint compound to render said joint compound suitable for use.

15 23. A drywall joint compound comprising by weight percent:

- (a) between about 25 percent and about 95 percent filler material;
- 20 (b) between about 1 percent and about 45 percent binder material;
- (c) between about 0.1 percent and about 20 percent dust reducing additive; and
- (d) sufficient water to form a slurry with said filler material, said binder material, and said dust reducing additive.